



Complete Summary

TITLE

Stroke and stroke rehabilitation: percentage of patients aged 18 years and older with the diagnosis of ischemic stroke or intracranial hemorrhage who received DVT prophylaxis by end of hospital day 2.

SOURCE(S)

American Academy of Neurology, American College of Radiology, Physician Consortium for Performance Improvement®, National Committee for Quality Assurance. Stroke and stroke rehabilitation physician performance measurement set. Chicago (IL): American Medical Association, National Committee for Quality Assurance; 2006 Sep. 19 p.

Measure Domain

PRIMARY MEASURE DOMAIN

Process

The validity of measures depends on how they are built. By examining the key building blocks of a measure, you can assess its validity for your purpose. For more information, visit the [Measure Validity](#) page.

SECONDARY MEASURE DOMAIN

Does not apply to this measure

Brief Abstract

DESCRIPTION

This measure is used to assess the percentage of patients aged 18 years and older with the diagnosis of ischemic stroke OR intracranial hemorrhage who received deep vein thrombosis (DVT) prophylaxis by end of hospital day 2.

RATIONALE

Patients on bed rest are at high risk for deep vein thrombosis (DVT). DVT prevention is important for all patients who have suffered a stroke or an intracranial hemorrhage and may have decreased mobility. The intent of this measure is to assure that adequate DVT prophylaxis is received for either diagnosis. As noted in the clinical recommendation statements*, the appropriate

type of prophylaxis differs by diagnosis. Anticoagulants are generally contraindicated in patients with intracranial hemorrhage. These patients are still at risk for DVT so they should receive prophylaxis with mechanical devices. Low-dose subcutaneous heparin may be initiated on the second day after onset of the hemorrhage.

*The following clinical recommendation statements are quoted verbatim from the referenced clinical guidelines and represent the evidence base for the measure:

Subcutaneous unfractionated heparin, low-molecular weight heparins (LMWHs), and heparinoids may be considered for DVT prophylaxis in at-risk patients with acute ischemic stroke, recognizing that nonpharmacologic treatments for DVT prevention also exist. (American Academy of Neurology/American Stroke Association [AAN/ASA])

The use of intermittent external compression stockings or aspirin for patients who cannot receive anticoagulants is strongly recommended to prevent deep vein thrombosis among immobilized patients. (ASA)

For acute stroke patients with restricted mobility, we recommend prophylactic low-dose subcutaneous heparin or low-molecular-weight heparins or heparinoids. In patients with an acute intracranial hemorrhage (ICH), we recommend the initial use of intermittent pneumatic compression for the prevention of DVT and pulmonary embolism (PE). In stable patients, we suggest low-dose subcutaneous heparin may be initiated as soon as the second day after the onset of the hemorrhage. (American College of Chest Physicians [ACCP])

PRIMARY CLINICAL COMPONENT

Ischemic stroke; intracranial hemorrhage; deep vein thrombosis (DVT) prophylaxis; low-molecular weight heparin (LMWH); low-dose unfractionated heparin (LDUH); intravenous heparin; low-dose subcutaneous heparin; intermittent pneumatic compression devices

DENOMINATOR DESCRIPTION

All patients aged 18 years and older with the diagnosis of ischemic stroke OR intracranial hemorrhage (see the related "Denominator Inclusions/Exclusions" field in the Complete Summary)

NUMERATOR DESCRIPTION

Patients who received deep vein thrombosis (DVT) prophylaxis* by end of hospital day 2

*DVT Prophylaxis: low-molecular weight heparin (LMWH), OR low-dose unfractionated heparin (LDUH), OR intravenous heparin, OR low-dose subcutaneous heparin, OR intermittent pneumatic compression devices

Evidence Supporting the Measure

EVIDENCE SUPPORTING THE CRITERION OF QUALITY

- A clinical practice guideline or other peer-reviewed synthesis of the clinical evidence

NATIONAL GUIDELINE CLEARINGHOUSE LINK

- [Anticoagulants and antiplatelet agents in acute ischemic stroke: report of the Joint Stroke Guideline Development Committee of the American Academy of Neurology and the American Stroke Association \(a division of the American Heart Association\).](#)
- [Antithrombotic and thrombolytic therapy for ischemic stroke: the Seventh ACCP Conference on Antithrombotic and Thrombolytic Therapy.](#)

Evidence Supporting Need for the Measure

NEED FOR THE MEASURE

Use of this measure to improve performance

EVIDENCE SUPPORTING NEED FOR THE MEASURE

McGlynn EA, Asch SM, Adams J, Keesey J, Hicks J, DeCristofaro A, Kerr EA. The quality of health care delivered to adults in the United States. N Engl J Med 2003 Jun 26;348(26):2635-45. [PubMed](#)

Thom T, Haase N, Rosamond W, Howard VJ, Rumsfeld J, Manolio T, Zheng ZJ, Flegal K, O'Donnell C, Kittner S, Lloyd-Jones D, Goff DC Jr, Hong Y, Adams R, Friday G, Furie K, Gorelick P, Kissela B, Marler J, Meigs J, Roger V, Sidney S, Sorlie P, Steinberger J, Wasserthiel-Smoller S, Wilson M, Wolf P. Heart disease and stroke statistics--2006 update: a report from the American Heart Association Statistics Committee and Stroke Statistics Subcommittee. Circulation 2006 Feb 14;113(6):e85-151. [PubMed](#)

State of Use of the Measure

STATE OF USE

Current routine use

CURRENT USE

Internal quality improvement
National reporting

Application of Measure in its Current Use

CARE SETTING

Hospitals

PROFESSIONALS RESPONSIBLE FOR HEALTH CARE

Advanced Practice Nurses
Physician Assistants
Physicians

LOWEST LEVEL OF HEALTH CARE DELIVERY ADDRESSED

Individual Clinicians

TARGET POPULATION AGE

Age greater than or equal to 18 years

TARGET POPULATION GENDER

Either male or female

STRATIFICATION BY VULNERABLE POPULATIONS

Unspecified

Characteristics of the Primary Clinical Component

INCIDENCE/PREVALENCE

Unspecified

ASSOCIATION WITH VULNERABLE POPULATIONS

Unspecified

BURDEN OF ILLNESS

Unspecified

UTILIZATION

Unspecified

COSTS

Unspecified

Institute of Medicine National Healthcare Quality Report Categories

IOM CARE NEED

Getting Better

IOM DOMAIN

Effectiveness

Data Collection for the Measure

CASE FINDING

Users of care only

DESCRIPTION OF CASE FINDING

All patients aged 18 years and older with the diagnosis of ischemic stroke OR intracranial hemorrhage

DENOMINATOR SAMPLING FRAME

Patients associated with provider

DENOMINATOR INCLUSIONS/EXCLUSIONS

Inclusions

All patients aged 18 years and older with the diagnosis of ischemic stroke OR intracranial hemorrhage

Exclusions

- Documentation of medical reason(s) (including physician documentation that patient is ambulatory) for not receiving deep vein thrombosis (DVT) prophylaxis by end of hospital day 2
- Documentation of patient reason(s) for not receiving DVT prophylaxis by end of hospital day 2

RELATIONSHIP OF DENOMINATOR TO NUMERATOR

All cases in the denominator are equally eligible to appear in the numerator

DENOMINATOR (INDEX) EVENT

Clinical Condition
Institutionalization

DENOMINATOR TIME WINDOW

Time window brackets index event

NUMERATOR INCLUSIONS/EXCLUSIONS

Inclusions

Patients who received deep vein thrombosis (DVT) prophylaxis* by end of hospital day 2

*DVT Prophylaxis: low-molecular weight heparin (LMWH), OR low-dose unfractionated heparin (LDUH), OR intravenous heparin, OR low-dose subcutaneous heparin, OR intermittent pneumatic compression devices

Exclusions

None

MEASURE RESULTS UNDER CONTROL OF HEALTH CARE PROFESSIONALS, ORGANIZATIONS AND/OR POLICYMAKERS

The measure results are somewhat or substantially under the control of the health care professionals, organizations and/or policymakers to whom the measure applies.

NUMERATOR TIME WINDOW

Fixed time period

DATA SOURCE

Administrative data
Medical record

LEVEL OF DETERMINATION OF QUALITY

Individual Case

PRE-EXISTING INSTRUMENT USED

Unspecified

Computation of the Measure**SCORING**

Rate

INTERPRETATION OF SCORE

Better quality is associated with a higher score

ALLOWANCE FOR PATIENT FACTORS

Unspecified

STANDARD OF COMPARISON

Internal time comparison

Evaluation of Measure Properties

EXTENT OF MEASURE TESTING

Unspecified

Identifying Information

ORIGINAL TITLE

Measure #1: deep vein thrombosis prophylaxis (DVT) for ischemic stroke or intracranial hemorrhage.

MEASURE COLLECTION

[The Physician Consortium for Performance Improvement® Measurement Sets](#)

MEASURE SET NAME

[Stroke and Stroke Rehabilitation Physician Performance Measurement Set](#)

SUBMITTER

American Medical Association on behalf of the American Academy of Neurology, American College of Radiology, the National Committee for Quality Assurance, and the Physician Consortium for Performance Improvement®

DEVELOPER

American Academy of Neurology
American College of Radiology
National Committee for Quality Assurance
Physician Consortium for Performance Improvement®

FUNDING SOURCE(S)

Unspecified

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FINANCIAL DISCLOSURES/OTHER POTENTIAL CONFLICTS OF INTEREST

Conflicts, if any, are disclosed in accordance with the Physician Consortium for Performance Improvement® conflict of interest policy.

ENDORSER

National Quality Forum

INCLUDED IN

Ambulatory Care Quality Alliance
Physician Quality Reporting Initiative

ADAPTATION

This measure was harmonized to the extent possible with hospital level measures for stroke developed by The Joint Commission.

PARENT MEASURE

Unspecified

RELEASE DATE

2006 Sep

MEASURE STATUS

This is the current release of the measure.

SOURCE(S)

American Academy of Neurology, American College of Radiology, Physician Consortium for Performance Improvement®, National Committee for Quality Assurance. Stroke and stroke rehabilitation physician performance measurement set. Chicago (IL): American Medical Association, National Committee for Quality Assurance; 2006 Sep. 19 p.

MEASURE AVAILABILITY

The individual measure, "Measure #1: Deep Vein Thrombosis Prophylaxis (DVT) for Ischemic Stroke or Intracranial Hemorrhage," is published in the "Stroke and Stroke Rehabilitation: Physician Performance Measurement Set." This document and technical specifications are available in Portable Document Format (PDF) from the American Medical Association (AMA)-convened Physician Consortium for Performance Improvement® Web site: www.physicianconsortium.org.

For further information, please contact AMA staff by e-mail at cqi@ama-assn.org.

NQMC STATUS

This NQMC summary was completed by ECRI Institute on September 13, 2007. The information was verified by the measure developer on October 26, 2007.

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